

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



83113
rve
9
UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

I N S E C T P E S T S U R V E Y

Special Supplement

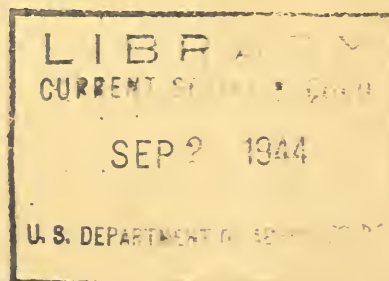
August 15, 1944

ESTIMATE OF DAMAGE TO WINTER WHEAT BY THE HESSIAN FLY IN 1943

By C. C. Hill, Entomologist
Division of Cereal and Forage Insect Investigations

It has been estimated that the hessian fly caused a loss of about \$8,257,000 to the winter wheat harvested in 1943 in 23 of the principal winter wheat growing States as shown in the accompanying table. The total value of this crop in these States amounted to \$532,197,000. The estimate of loss was obtained by applying the method of figuring hessian fly losses described in Department Circular 663 to the results of the hessian fly survey made during June and July, 1943. This estimate is very conservative because it does not include the injury to the newly planted crop during the preceding autumn by the fall brood of flies, losses due to acreage abandoned because of fly infestation, or the loss of spring infested stems that matured but fell down before harvest. One authority, for instance, has estimated that the fly caused a loss of 25,000,000 bushels of wheat in 1943 in Kansas alone.

Infestations were low throughout the winter wheat belt with exceptions of moderate to heavy infestations in the Sacramento Valley and south-central coastal counties of California, and more or less localized areas in some of the other States. The loss caused by the hessian fly in the 1943 crop was therefore low compared with that occurring in years of extensive and severe infestations. Data shown in the accompanying table other than that pertaining to the hessian fly were contributed by the Bureau of Agricultural Economics.



Estimate of damage by the hessian fly to the winter wheat harvest in 23 States, 1943

State	Acreage : harvested	Fly : infestation	Rate of Loss due to infest.*/	Production : in bushels	Estimated : loss of crop	Value : of harvest	Estimated loss of crop value
	1,000 acres	Percent of culms	Bu. per acre	Thousands	Bushels	1,000 dollars	Dollars
California ...	456	25	1.08	8,436	492,480	12,232	714,096
Colorado	1,283	2	.08	29,381	102,640	37,020	129,326
Nebraska	2,865	6	.25	60,165	716,250	80,019	952,613
Kansas	10,155	7	.29	144,201	2,944,950	157,179	3,209,996
Oklahoma	3,338	4	.16	31,711	534,080	40,907	688,963
Iowa	139	1	.04	2,919	5,560	3,882	7,395
Missouri	973	4	.16	12,649	155,680	18,215	224,179
Arkansas	18	3	.12	198	2,160	265	2,894
Illinois	1,010	2	.08	16,665	80,800	24,664	119,584
Michigan	652	3	.12	11,084	78,240	17,291	122,054
Indiana	949	5	.20	15,184	189,800	23,080	288,496
Ohio	1,602	4	.16	26,433	256,320	40,707	394,733
Kentucky	289	8	.33	3,902	95,370	5,931	144,962
Tennessee	343	3	.12	4,116	41,160	6,421	64,210
New York	249	9	.37	4,482	92,130	7,171	147,408
Pennsylvania ..	781	8	.33	13,277	257,730	20,314	394,327
New Jersey	46	13	.53	920	24,380	1,279	33,888
Delaware	56	5	.20	1,008	11,200	1,552	17,248
Maryland	289	7	.29	4,913	83,810	7,763	132,420
Virginia	451	4	.16	5,863	72,160	9,322	114,734
North Carolina ..	465	4	.16	5,812	74,400	9,183	117,552
South Carolina ..	261	8	.33	3,002	86,130	4,653	133,502
Georgia	193	9	.37	2,123	71,410	3,057	102,830

Total-----26,863

408,444 6,468,840 532,107 8,257,410